

Title (en)

PURIFYING AQUEOUS MIXTURES DERIVED FROM HYDROCARBON PRODUCTION PROCESSES

Title (de)

REINIGUNG WÄSSRIGER, AUS WASSERSTOFFHERSTELLUNGSVERFAHREN ABGELEITETER MISCHUNGEN

Title (fr)

PURIFICATION DE MÉLANGES AQUEUX PROVENANT DE PROCESSUS DE PRODUCTION D'HYDROCARBURES

Publication

EP 2925674 A4 20160427 (EN)

Application

EP 13861246 A 20131203

Priority

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- US 2013072744 W 20131203

Abstract (en)

[origin: WO2014089002A1] A method for purifying an aqueous mixture is provided. The method can include at least partially crystallizing an aqueous mixture derived from a hydrocarbon process to provide a crystallized aqueous mixture. The aqueous mixture can comprise water and one or more contaminants to be separated from the water. The crystallized aqueous mixture can be separated into a contaminant-rich fraction and a water-rich fraction. Water can be recovered from the water-rich fraction and the one or more contaminants can be recovered from the contaminant-rich fraction.

IPC 8 full level

C02F 1/22 (2006.01)

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C02F 1/048 (2013.01 - EP US); **C02F 1/22** (2013.01 - EP US); **C02F 1/441** (2013.01 - EP US); **C02F 1/444** (2013.01 - EP US);
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C02F 2001/007 (2013.01 - EP US); **C02F 2001/5218** (2013.01 - EP US); **C02F 2103/10** (2013.01 - EP US); **C02F 2103/365** (2013.01 - EP US);
C02F 2209/001 (2013.01 - EP US); **C02F 2209/01** (2013.01 - EP US); **C02F 2209/05** (2013.01 - EP US); **C02F 2209/06** (2013.01 - EP US);
C02F 2209/10 (2013.01 - EP US)

Citation (search report)

- [XI] US 2012234765 A1 20120920 - SENGUPTA ARUP K [US], et al
- [XI] US 2012097609 A1 20120426 - XIA JIYANG [CN], et al
- [XI] US 7909098 B2 20110322 - MINNICH KEITH R [US], et al
- [ID] HAM VAN DER F ET AL: "Eutectic freeze crystallization: application to process streams and waste water purification", CHEMICAL ENGINEERING AND PROCESSING, ELSEVIER SEQUOIA, LAUSANNE, CH, vol. 37, no. 2, 1 March 1998 (1998-03-01), pages 207 - 213, XP002253284, ISSN: 0255-2701, DOI: 10.1016/S0255-2701(97)00055-X
- See references of WO 2014089002A1

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DOCDB simple family (publication)

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